# User Manual

**USB Print Server**

**LPV2-USB-TX1**

BUFFALO™

## Unpacking and Setup

This section provides unpacking and setup information for the USB Print Server.

### Unpacking

Open the shipping carton of the Switch and carefully unpack its contents. The carton should contain the following items:

| | |
|---|---|
| Main unit (LPV2-USB-TX1) | 1 |
| AC adapter | 1 |
| Power cord | 1 |
| USB A-to-B cable | 1 |
| Ethernet cable | 1 |
| Installation CD | 1 |
| Manual (this user's guide) | 1 |
| Warranty card | 1 |

If any item is found missing or damaged, please contact your local reseller or retailer for replacement.

## *Setup*

The setup of the USB Print Server is performed using the following steps:

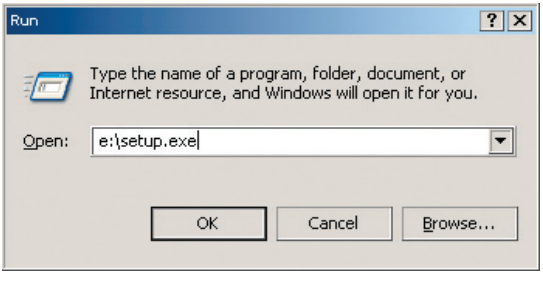
- Connect the USB Print Server into the included AC Adapter power cord, and attach the power cord to a power outlet.
- Connect the included standard patch cable from the USB Print Server to a switch, hub, or router on your network.
- Connect the included USB A-to-B cable to the USB Print Server and the USB Printer. Visually inspect all connections and verify that they are secured.

## *Software Installation- Windows Based PC's*

***Macintosh Procedure on Page 19****

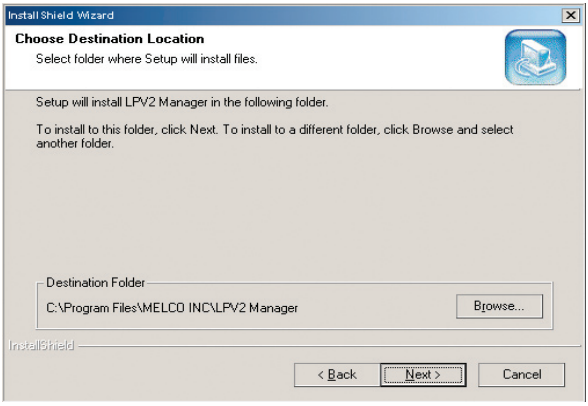
This section describes how to properly install and use the USB Print Server configuration software. Please follow the following steps to properly install the software:

- Insert the included CD into a CDROM Drive.
- Run the setup.exe program found on the root of the CD. This can be done by browsing to the CD or by going to the 'Start Menu', selecting 'Run...' , and typing x:\setup.exe (Where x is the drive letter of the CDROM Drive), then press the '***OK***' button.

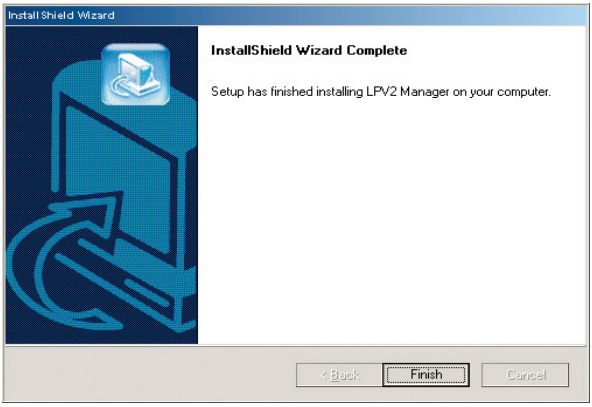



- The Install Shield Wizard for LPV2 Manager will open up. Press the '***Next***' button.

- Press the '***Browse***' button if there is a specific location the manager should be installed to. Otherwise press the '***Next***' button and accept the default installation location.


Install Shield Wizard
Choose Destination Location
Select folder where Setup will install files.
Setup will install LPV2 Manager in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\MELCO INC\LPV2 Manager
Browse...
InstallShield
< Back
Next >
Cancel

- The installation will continue and copy files to their necessary locations. When the installation is complete, press the '***Finish***' button.

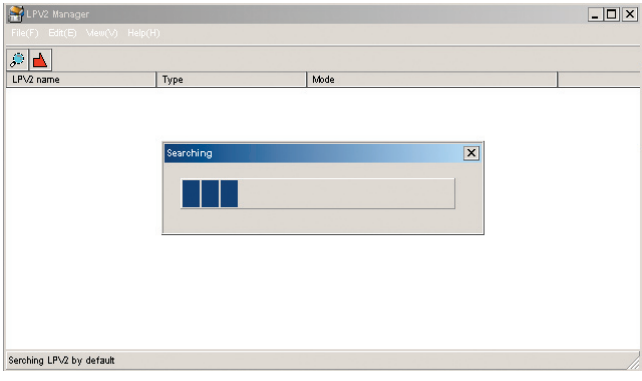



- Congratulations, the software has been successfully installed.

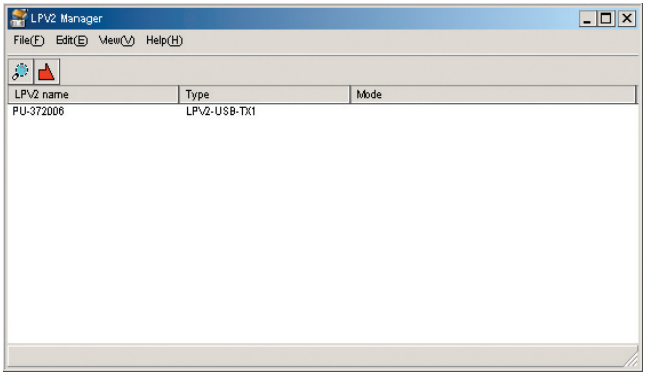
## *Using the Software*

- Launch the software by finding the icon in the Start Menu. Press the 'Start' button, select 'Programs', select 'MELCO INC', select 'LPV2 Manager', and finally press the ***'LPV2 Manager'*** icon.

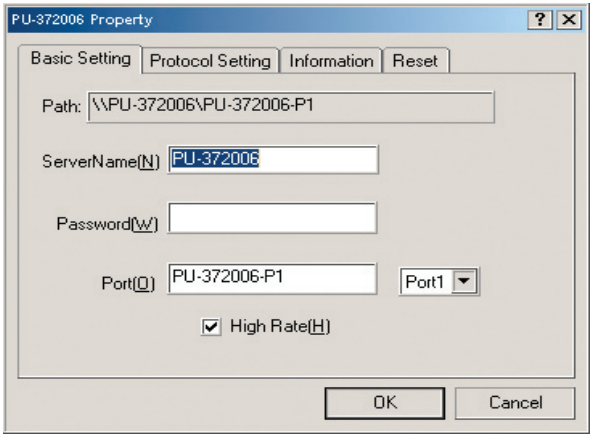
- The LPV2 Manager will launch and search for the USB Print Server on the network.



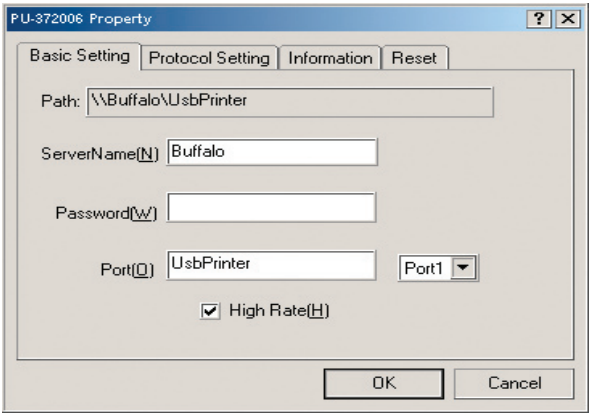

- The LPV2 Manager will display the USB Print Servers on the network.



- Configure the USB Print Server by double-clicking on the corresponding Print Server. This will open the USB Print Server's properties.

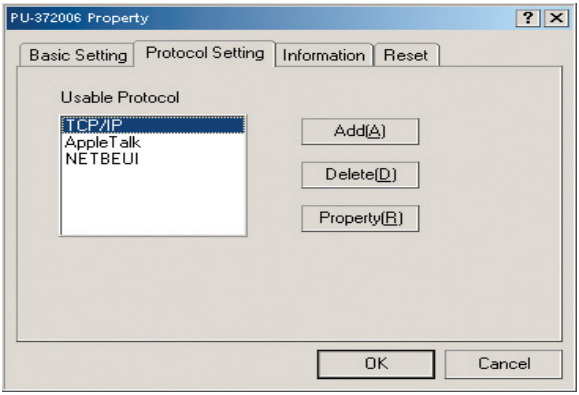



- The name of the USB Print Server can be changed by entering a new name in the '*Server Name*' field. The Password and Port names can also be changed if desired. Record the name and port for later use.

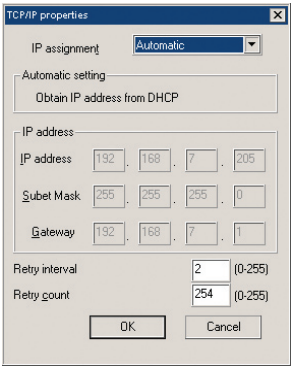



***NOTE***: The '*Password*' option sets a password for the administration options and web-based administration tool.

- To configure the protocol settings press the '***Protocol Setting***' tab. The protocol options are TCP/IP, Appletalk, NetBEUI, and SNMP. To configure a protocol, select it and press the '***Properties***' button.




- TCP/IP Settings:

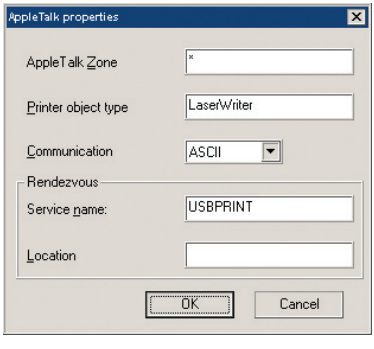



- Select the '*Manual Setting*' option from the drop-down menu if a specific IP address is desired. Otherwise leave the setting on Automatic. With Automatic used, the device will obtain its IP from a DHCP server. Record the IP address of the printer. When the selection is made, press the '***OK***' button.

***NOTE***: If DHCP is used, it is recommended to exit out of the program, reconnect to the Print Server through the Manager and record the new 'discovered' IP address. The IP address will be greyed out like above.

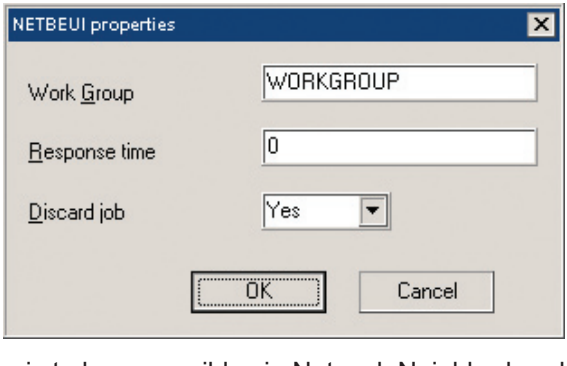
***NOTE***: It is recommended to use IP based printing for newer PC-only networks. If there are Macintoshes or older PC's on the network, then please configure the appropriate AppleTalk and NetBEUI settings.

- AppleTalk Settings:



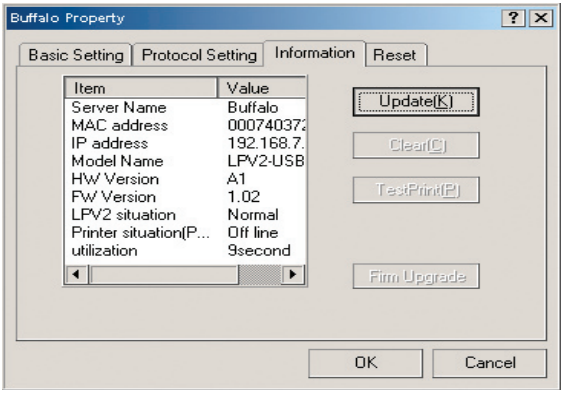

- If there are Macintosh computers on the network that wish to use the printer, then enter a 'Rendezvous Service Name' in the field and press the '***OK***' button. This name is the friendly name Mac users will see when installing their printer.

- NetBEUI Settings:

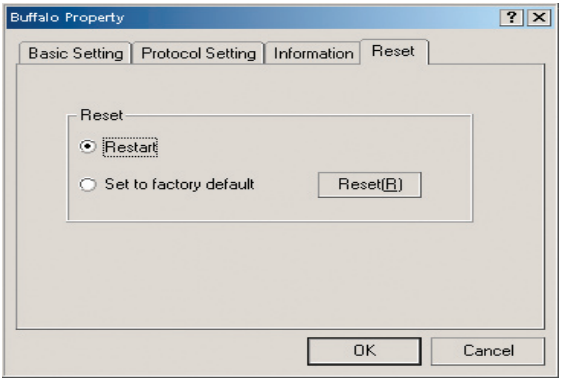



- If the printer is to be accessible via Network Neighborhood in Windows 98 and Windows ME, then enter the proper Work Group name for your Work Group. Once the settings have been set, press the '***OK***' button.

- To view the information about the USB Print Server, press the '***Information***' tab. This tab will display the current information about the USB Print Server.




- To reset the device or to restore the factory default settings, press the '***Reset***' tab.




**Restart**: Reboots the USB Print Server
**Set to Factory Default**: Restores the factory default settings.

Once all settings have been changed, save the settings by pressing the '***OK***' button.

***NOTE:*** Future configuration can be done using your web browser. Browse to http://xxx.xxx.xxx.xxx (where xxx.xxx.xxx.xxx is the configured IP address of the Print Server.)

# Installing the Printer

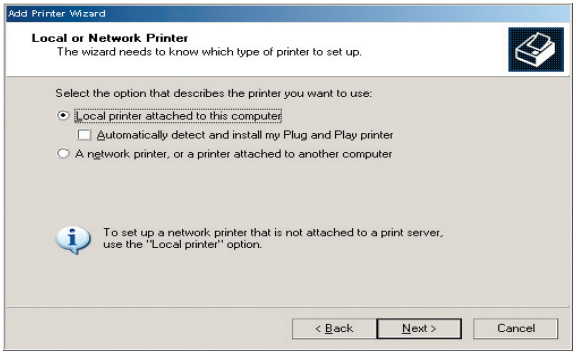
## Windows 2000 & XP

*Macintosh Procedure on Page 22**

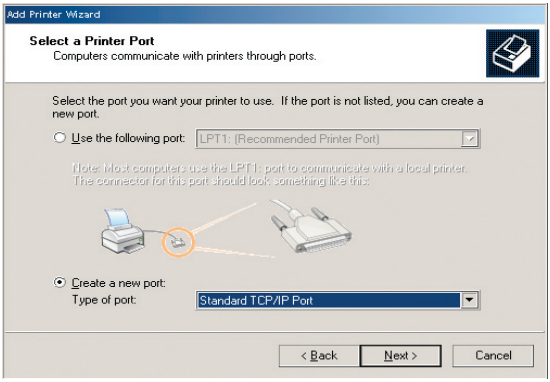
- Open the 'Printers and Faxes' folder. To do so, open the '*Control Panel*' and then open the '*Printers and Faxes*' folder. Double click on the '***Add Printer***' icon. This will open the 'Add Printer Wizard'. Press the '***Next***' button.

Add Printer Wizard
Welcome to the Add Printer Wizard
This wizard helps you install a printer or make printer connections.
If you have a Plug and Play printer that connects through a USB port (or any other hot pluggable port, such as IEEE 1394, infrared, and so on), you do not need to use this wizard. Click Cancel to close the wizard, and then plug the printer's cable into your computer or point the printer toward your computer's infrared port, and turn the printer on. Windows will automatically install the printer for you.
To continue, click Next.
< Back
Next >
Cancel

- Select '*Local printer attached to this computer*'. Also, uncheck the '*Automatically detect and install my Plug and Play printer*' check box. Press the '***Next***' button when finished.

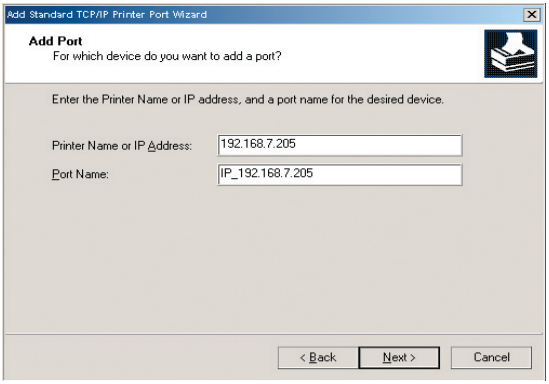

Add Printer Wizard
Local or Network Printer
The wizard needs to know which type of printer to set up.
Select the option that describes the printer you want to use:
Local printer attached to this computer
Automatically detect and install my Plug and Play printer
A network printer, or a printer attached to another computer
To set up a network printer that is not attached to a print server, use the "Local printer" option.
< Back
Next >
Cancel

- Select '*Create a new port: Type of port:*'. From the pull down list, select '*Standard TCP/IP Port*'. Press the '***Next***' button.


Add Printer Wizard
Select a Printer Port
Computers communicate with printers through ports.
Select the port you want your printer to use. If the port is not listed, you can create a new port.
Use the following port:
LPT1: (Recommended Printer Port)
Note: Most computers use the LPT1: port to communicate with a local printer. The connector for this port should look something like this:
Create a new port:
Type of port:
Standard TCP/IP Port
< Back
Next >
Cancel

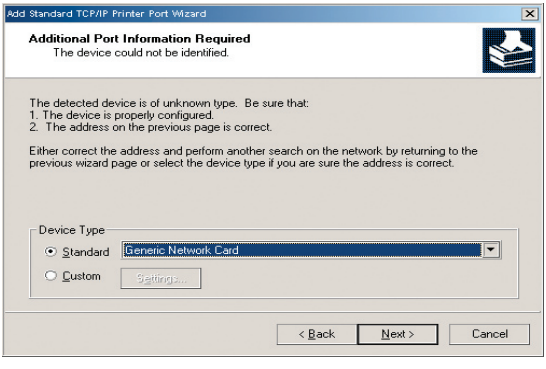
- The 'Add Standard TCP/IP Printer Port Wizard' will open. Press the '***Next***' button.

- Enter the IP address of the USB Print Server into the field called '*Printer Name or IP Address:*'. The Port Name field will be filled automatically once the IP address is entered.


Add Standard TCP/IP Printer Port Wizard
Add Port
For which device do you want to add a port?
Enter the Printer Name or IP address, and a port name for the desired device.
Printer Name or IP Address:
192.168.7.205
Port Name:
IP_192.168.7.205
< Back
Next >
Cancel

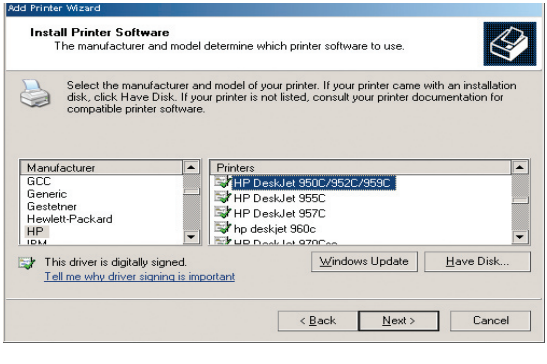
- Please enter the IP address recorded on *page 6*. Once complete, press the '***Next***' button.

- The ‘Additional Port Information Required’ window will appear. Select ‘*Standard*’ device type and select ‘*Generic Network Card*’ from the pull down menu. Press the ‘***Next***’ button when finished.


Add Standard TCP/IP Printer Port Wizard
Additional Port Information Required
The device could not be identified.
The detected device is of unknown type. Be sure that:
1. The device is properly configured.
2. The address on the previous page is correct.
Either correct the address and perform another search on the network by returning to the previous wizard page or select the device type if you are sure the address is correct.
Device Type
Standard
Generic Network Card
Custom
Settings...
< Back
Next >
Cancel

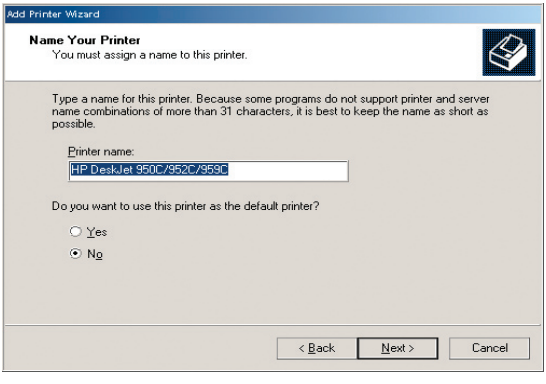
- A summary screen will appear. Press the ‘***Finish***’ button to continue setting up your USB Network Printer.

- The ‘Install Printer Software’ window will appear. Please select the proper printer from the list below, or refer to the printer manufacturer’s driver location. Once the proper printer driver has been selected, press the ‘***Next***’ button.


Add Printer Wizard
Install Printer Software
The manufacturer and model determine which printer software to use.
Select the manufacturer and model of your printer. If your printer came with an installation disk, click Have Disk. If your printer is not listed, consult your printer documentation for compatible printer software.
Manufacturer
GCC
Generic
Gestetner
Hewlett-Packard
HP
Printers
HP DeskJet 950C/952C/959C
HP DeskJet 955C
HP DeskJet 957C
hp deskjet 960c
This driver is digitally signed.
Tell me why driver signing is important
Windows Update
Have Disk...
< Back
Next >
Cancel

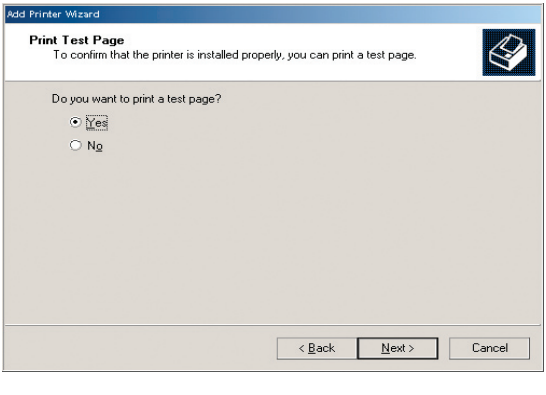
- ***NOTE***: Press the ‘***Have Disk***’ button to install drivers from a CD-ROM or Floppy disk.

- The ‘Name Your Printer’ window will appear. Enter an appropriate name or leave the default ‘Printer name’ if desired. Also, select if the printer is to be the default printer or not. Press the ‘***Next***’ button when complete.


Add Printer Wizard
Name Your Printer
You must assign a name to this printer.
Type a name for this printer. Because some programs do not support printer and server name combinations of more than 31 characters, it is best to keep the name as short as possible.
Printer name:
HP DeskJet 950C/952C/959C
Do you want to use this printer as the default printer?
Yes
No
< Back
Next >
Cancel

- The ‘Printer Sharing’ window will appear. Select ‘Do not share this printer’ and click the ‘***Next***’ button.

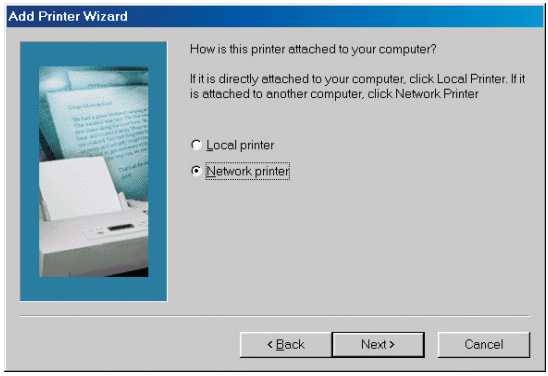
- The ‘Print Test Page’ window will appear. Select ‘*Yes*’ to print a test page. Press the ‘***Next***’ button when finished.


Add Printer Wizard
Print Test Page
To confirm that the printer is installed properly, you can print a test page.
Do you want to print a test page?
Yes
No
< Back
Next >
Cancel

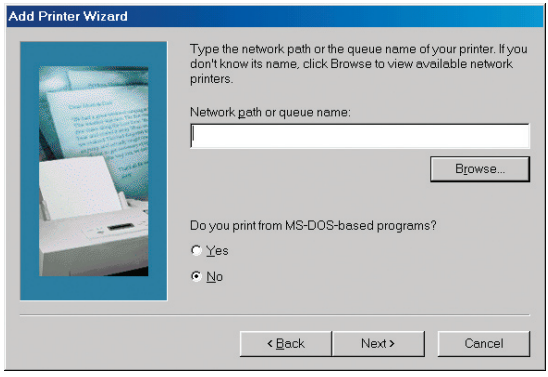
- The ‘Add Print Wizard’ is now complete. Press the ‘***Finish***’ button. Congratulations, your USB Network Printer has been installed.

- Open the 'Printers' folder. To do so, open the '*Control Panel*' and then open the '*Printers*' folder. Double click on the '***Add Printer***' icon. This will open the 'Add Printer Wizard'. Press the '***Next***' button.

- You will be prompted to select the type of printer to be installed. Select '*Network printer*' and press the '***Next***' button.

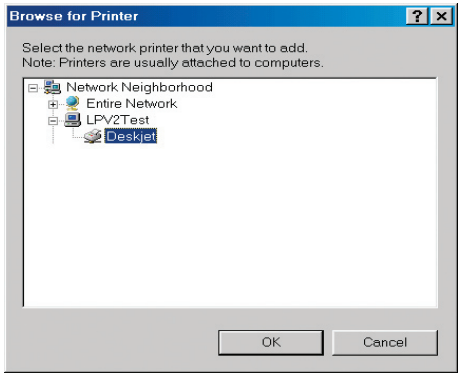

Add Printer Wizard
How is this printer attached to your computer?
If it is directly attached to your computer, click Local Printer. If it is attached to another computer, click Network Printer
Local printer
Network printer
< Back
Next >
Cancel

- A prompt for the '*Network path or queue name*' will appear. Press the '***Browse***' button.


Add Printer Wizard
Type the network path or the queue name of your printer. If you don't know its name, click Browse to view available network printers.
Network path or queue name:
Browse...
Do you print from MS-DOS-based programs?
Yes
No
< Back
Next >
Cancel

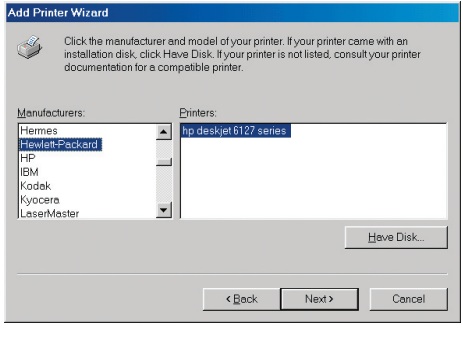
***NOTE:*** You can enter the printer's path if you wish. The format should be \\PrintServer\PortName (where PrintServer and PortName are the same as set on *page 5*. Press the '***Next***' button when finished.

- The ‘Browse’ dialog window will appear. Browse for the appropriate printer, select it, and press the ‘***OK***’ button.

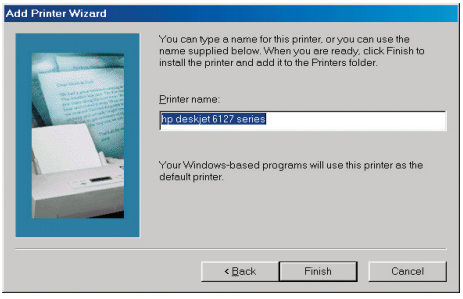



***NOTE***: If an error is displayed while browsing for the printer, then there is a network problem, or a problem with the ‘PortName’ set on Page 5. To remedy the problem, reset the Print Server to factory defaults by following the instructions on Page 8. Then restart the configuration from Page 4. If you still have problems, contact our 24/7 customer support at 1-(866) 752-6210.

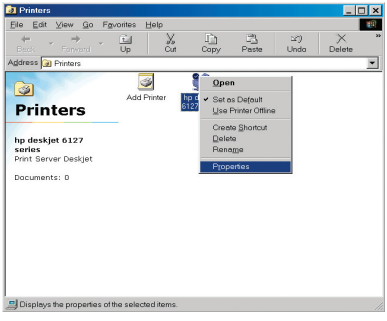
- The ‘Driver Selection’ window will appear. Select the correct driver from the supplied list, or press the ‘***Have Disk***’ button to select a driver supplied by the printer manufacturer. Once the proper driver has been selected, press the ‘***Next***’ button.



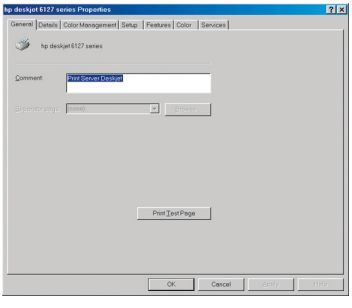
- The ‘Printer Name’ window will appear. Enter an appropriate name for the printer and press the ‘***Finish***’ button.


Add Printer Wizard
You can type a name for this printer, or you can use the name supplied below. When you are ready, click Finish to install the printer and add it to the Printers folder.
Printer name:
hp deskjet 6127 series
Your Windows-based programs will use this printer as the default printer.
< Back
Finish
Cancel

- The USB Network Printer is now installed. A test print can verify that the printer is installed correctly. Find the printer in the Printer’s folder, right click on its icon and select ‘***Properties***’.




- The ‘Printer Properties’ window will appear. Press the ‘***Print Test Page***’ button to print a test page. If the test page prints, then your printer is setup properly.



## *Internet Printing Protocol (IPP)*

***Internet Printing Protocol (IPP)*** allows a computer in a remote location to print to an installed printer at a home or office over the internet. Practical applications would include printing to a work printer from home, printing to a work printer on a business trip, etc.

Please follow the following steps to properly setup IPP:

- IPP requires a full time internet connection at the location where the printer is installed.
- Port 631 is the default port for IPP. The router on the network needs to pass port 631 through to the local IP address of the USB Print Server. Please see the documentation for the router to setup port forwarding properly.
- The 'Port' name from *page 5* will be needed.

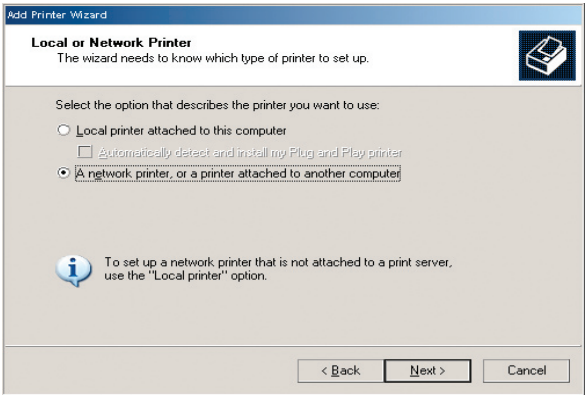
### *Windows 2000 & XP*

- Open the '*Printers and Faxes*' folder. To do so, open the '*Control Panel*' and then open the '*Printers and Faxes*' folder. Double click on the '***Add Printer***' icon. This will open the 'Add Printer Wizard'. Click the '***Next***' button.

Add Printer Wizard
Welcome to the Add Printer Wizard
This wizard helps you install a printer or make printer connections.
If you have a Plug and Play printer that connects through a USB port (or any other hot pluggable port, such as IEEE 1394, infrared, and so on), you do not need to use this wizard. Click Cancel to close the wizard, and then plug the printer's cable into your computer or point the printer toward your computer's infrared port, and turn the printer on. Windows will automatically install the printer for you.
To continue, click Next.
< Back
Next >
Cancel

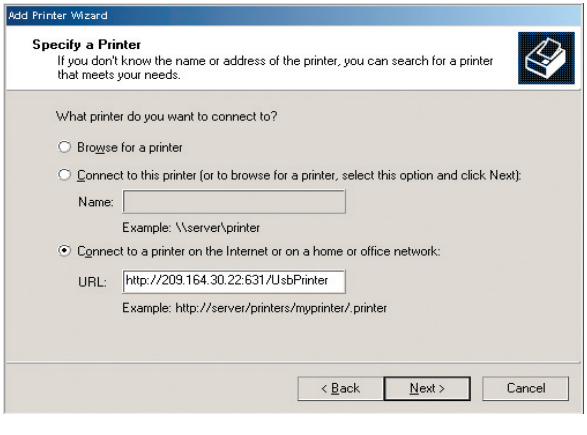
***NOTE:*** Internet Printing Protocol (IPP) is ***NOT*** supported in Windows 98 or Windows ME due to a lack of TCP/IP printing support.

- Select '*A network printer, or a printer attached to another computer*'. Press the '***Next***' button.

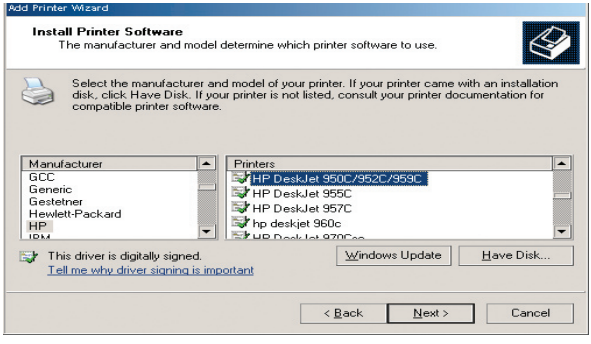

Add Printer Wizard
Local or Network Printer
The wizard needs to know which type of printer to set up.
Select the option that describes the printer you want to use:
Local printer attached to this computer
Automatically detect and install my Plug and Play printer
A network printer, or a printer attached to another computer
To set up a network printer that is not attached to a print server, use the "Local printer" option.
< Back
Next >
Cancel

- Select '*Connect to a printer on the Internet or on a home or office network:*'. In the 'URL' field, enter: http://IP_ADDRESS:631/PORTNAME (using the 'Port' name from *page 6*). Once complete, press the '***Next***' button.

***NOTE***: The IP address inputted needs to be your external/Internet IP address, ***NOT*** the internal IP address. Consult your router documentation or ISP information to determine this IP address.

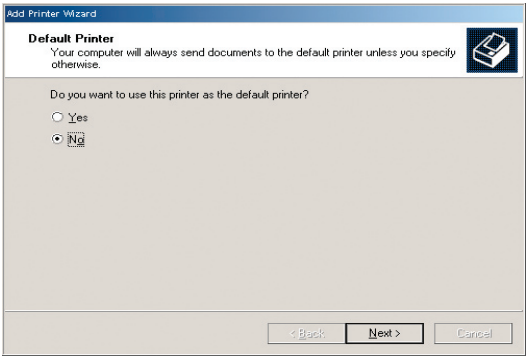

Add Printer Wizard
Specify a Printer
If you don't know the name or address of the printer, you can search for a printer that meets your needs.
What printer do you want to connect to?
Browse for a printer
Connect to this printer (or to browse for a printer, select this option and click Next):
Name:
Example: \\server\printer
Connect to a printer on the Internet or on a home or office network:
URL:
http://209.164.30.22:631/UsbPrinter
Example: http://server/printers/myprinter/.printer
< Back
Next >
Cancel

- The ‘Install Printer Software’ window will appear. Please select the proper printer from the list below, or refer to the printer manufacturer’s driver location. Once the proper printer driver has been selected, press the ‘***Next***’ button.


Add Printer Wizard
Install Printer Software
The manufacturer and model determine which printer software to use.
Select the manufacturer and model of your printer. If your printer came with an installation disk, click Have Disk. If your printer is not listed, consult your printer documentation for compatible printer software.
Manufacturer
GCC
Generic
Gestetner
Hewlett-Packard
HP
Printers
HP DeskJet 950C/952C/959C
HP DeskJet 955C
HP DeskJet 957C
hp deskjet 960c
This driver is digitally signed.
Tell me why driver signing is important
Windows Update
Have Disk...
< Back
Next >
Cancel

***NOTE***: Press the ‘***Have Disk***’ button to install drivers from a CD-ROM or Floppy disk.

- The ‘Default Printer’ window will appear. Select if the printer is to be the default printer or not. Press the ‘***Next***’ button when complete.


Add Printer Wizard
Default Printer
Your computer will always send documents to the default printer unless you specify otherwise.
Do you want to use this printer as the default printer?
Yes
No
< Back
Next >
Cancel

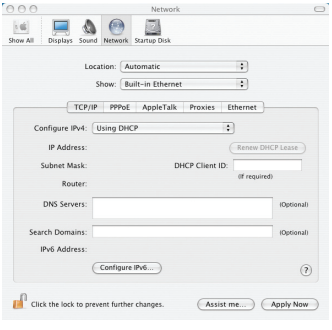
- The ‘Add Print Wizard’ is now complete. Press the ‘***Finish***’ button. Congratulations, your IPP USB Network Printer has been installed.

- The printer will now be available in your ‘Printers and Faxes’ folder. You can print a test page by going to the printer’s properties and pressing the ‘***Print Test Page***’ button.

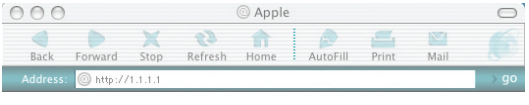
# Macintosh Setup

## Print Server Configuration

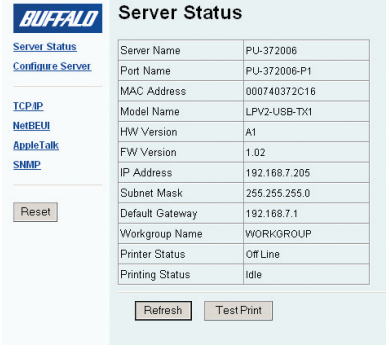
- Open the 'System Preferences' from the Apple menu and select '***Network***'. Set 'Show' to '***Buit-in Ethernet***'. Record the current settings; they will be needed later. Set 'Configure' to '***Manually***'. Enter ***1.1.1.2*** into the 'IP Address' field. Enter ***255.255.255.0*** into the 'Subnet Mask' field. Press the '***Apply Now***' button when finished.



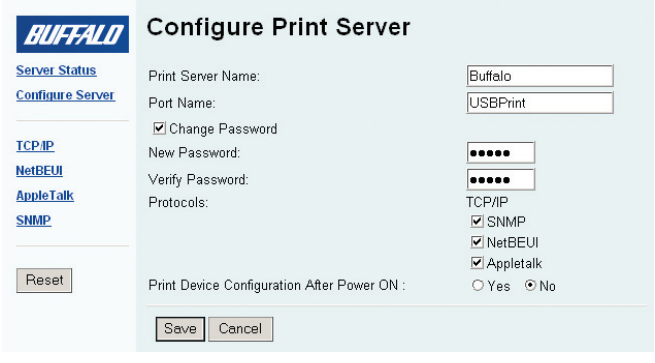

- Open a Web Browser (Version 4.5 or later) and enter ***1.1.1.1*** into the 'Address' field. Press the Enter or Return key to continue.



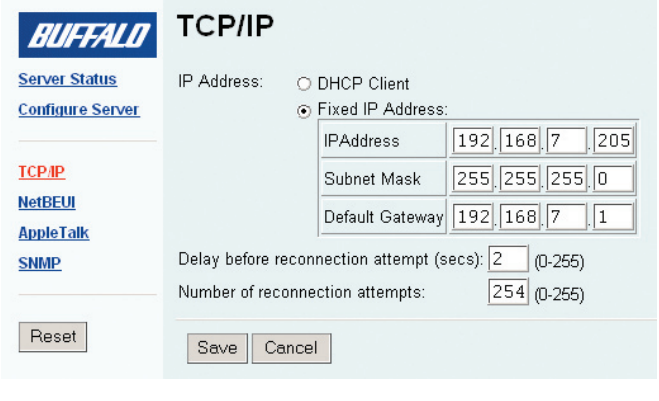

- The 'Server Status' page of the USB Print Server will open. Press the '***Configure Server***' link to continue setting the Print Server up.



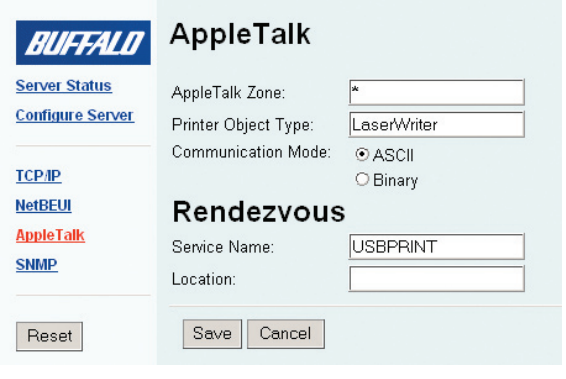
- The Configuration menu will appear. Enter an acceptable Print Server Name and Port. These can be left as default if desired. The Web-based Configuration system can be password protected by checking the '***Change Password***' checkbox and entering and verifying a new password. All of the protocol checkboxes can be left checked. Press the '***Save***' button when configuration is complete. A message will appear recommending a reset. Press the '***OK***' button.



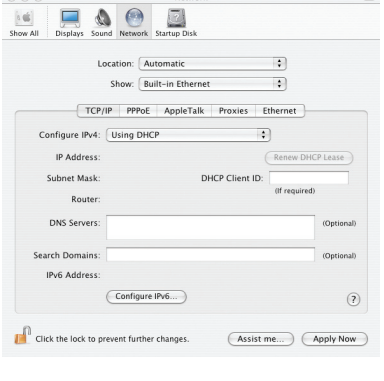

- Press the '***TCP/IP***' link on the left. Enter a fixed IP address or set the bullet to 'DHCP Client'. This will be the IP address used for PC-Based printing and for configuration. Store the IP address in a safe place in case you need to access the configuration options again. Press the '***Save***' button when configuration is complete. A message will appear recommending a reset. Press the '***OK***' button.



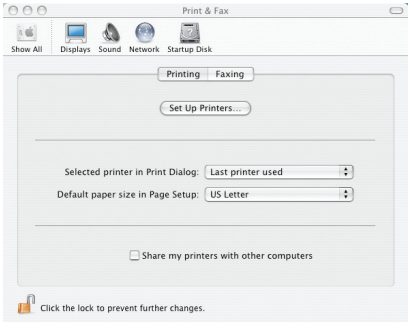
- Press the '***AppleTalk***' link on the left. Change the '***Rendezvous Service Name***' to an appropriate name for the printer. Press the '***Save***' button when configuration is complete. A message will appear recommending a reset. Press the '***OK***' button. Finally, press the '***Reset***' button on the left side of the browser. The browser window can now be closed.



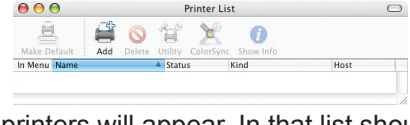

- Restore the TCP/IP settings. Open your '***System Preferences***' and select '***Network***'. Set 'Show' to 'Buit-in Ethernet'. Restore the settings that were recorded previously. Use the 'Using DHCP' option from the pull down menu if the IP address is to be automatically assigned. Otherwise, enter the proper static IP address information. Press the '***Apply Now***' button when configuration is complete.



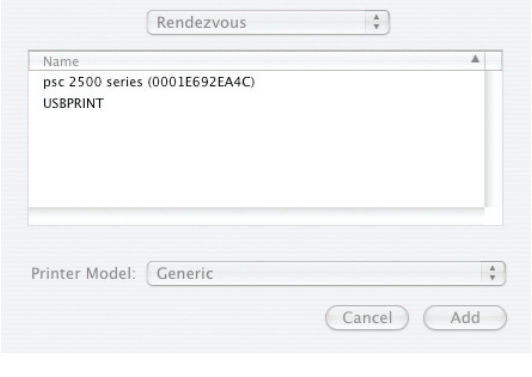
- Open the ‘System Preferences’ from the Apple menu and select ‘***Print & Fax***’. The ‘Print & Fax’ window will appear. Press the ‘***Set Up Printers...***’ button.



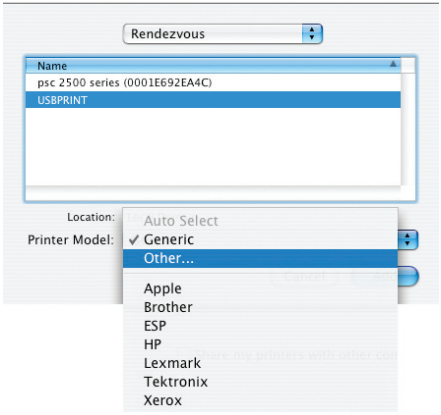

- The ‘Printer List’ will appear. A dialog box may appear stating “You have no printer available.” In this case press the ‘Add’ button. Otherwise press the ‘Add’ button from the graphical menu.



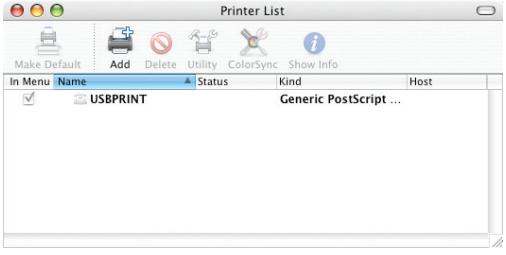

- A list of available printers will appear. In that list should appear the Rendezvous name set on Page 7 or Page 21. Highlight the correct printer.



- Press the '***Printer Model***' pull down menu and select the proper hardware driver for the printer. The printer's CD-ROM may be needed to install the proper drivers if they're not already supplied. In this case, select the '***Other...***' option and provide the location of the proper driver file. Once the driver has been selected, press the '***Add***' button.




- Congratulations, the printer has been installed. The 'Printer List' will now list the installed network printer. This window can be closed. You can now print to that printer.



## Technical Specifications

| | |
|---|---|
| **LAN Standards:** | IEEE 802.3u 100BASE-TX; IEEE 802.3 10BASE-T |
| **Transmission Types:** | 100Mbps/10 Mbps; 100BASE-TX 4B/5B, MLT-3; 10BASE-T Manchester Coding |
| **Access Media:** | CSMA/CD |
| **Media Interface:** | RJ-45 |
| **USB Standard:** | USB1.1 |
| **USB Connector:** | USB A Connector (1) |
| **Network Protocols:** | NetBEUI; TCP/IP; Apple Talk, SNMP |
| **Electric Current:** | 5.0V |
| **Power Consumption:** | 500mA |
| **Dimensions:** | 3.7 x 1.1 x 2.6 in. (92 x 28 x 52 mm.) |
| **Weight:** | 3.2 oz. (90 g.) |
| **Operating Temperature:** | 0-40 C; 20-80% non-condensing |

## Technical Support

Buffalo Technology offers toll-free technical support 24 hours a day, 7 days a week for this product. Customers in the United States and Canada can obtain technical support using the following information:

Web: www.buffalotech.com
E-mail: info@buffalotech.com
Telephone: 866-752-6210 (USA & Canada only)

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.